**Experimental Matrix**

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| Request | Materials | No. of Specimens | Specimen History | Sample Prep Required | Techniques required  | Analysis required  | Expected Outcome |
| 1 | eg. ZnO nanoparticles | 3 | Calcined 350 °C | Placing of sample material on TEM support grid | TEM, HRTEM, STEM, EDS | Imaging, diffraction, mapping | Size and distribution; Crystal structure; Elemental distribution |
| 2 | Eg. Irradiated SiC | 1 | Irradiated with neutrons to a dose of 3.4x1021 n/cm2 | Focussed ion beam preparation (FIB) | TEM, HRTEM | Imaging | Density of crystal defects; Types of crystal defects |
| 3 |  |  |  |  |  |  |  |
| … |  |  |  |  |  |  |  |